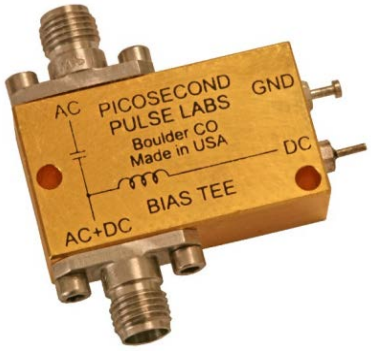
100V Bias Tee

PSPL5543 Datasheet



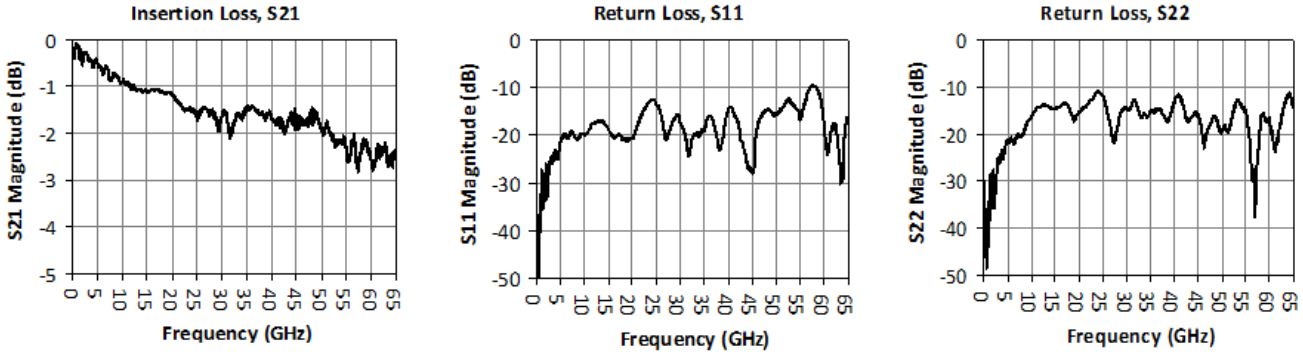
The PSPL5543 is an ultra-broadband, 500mA current, coaxial bias insertion tee and 100V DC blocking capacitor that passes high bandwidth pulses with very low waveform distortion. Its rise time is only 7 ps and its frequency response is flat over many decades from 20 kHz to beyond 50 GHz.

Key performance specifications

- 25 kHz to >50 GHz
- 7 ps rise time
- 100 V, 500 mA
- Available with 2.92 or 2.4 mm connectors

Microwave frequency response

Linear sweep from 40 MHz to 65 GHz. AC connector is input port (port 1).
AC + DC connector is output (port 2). Configured with 2.4mm connectors on input and output.

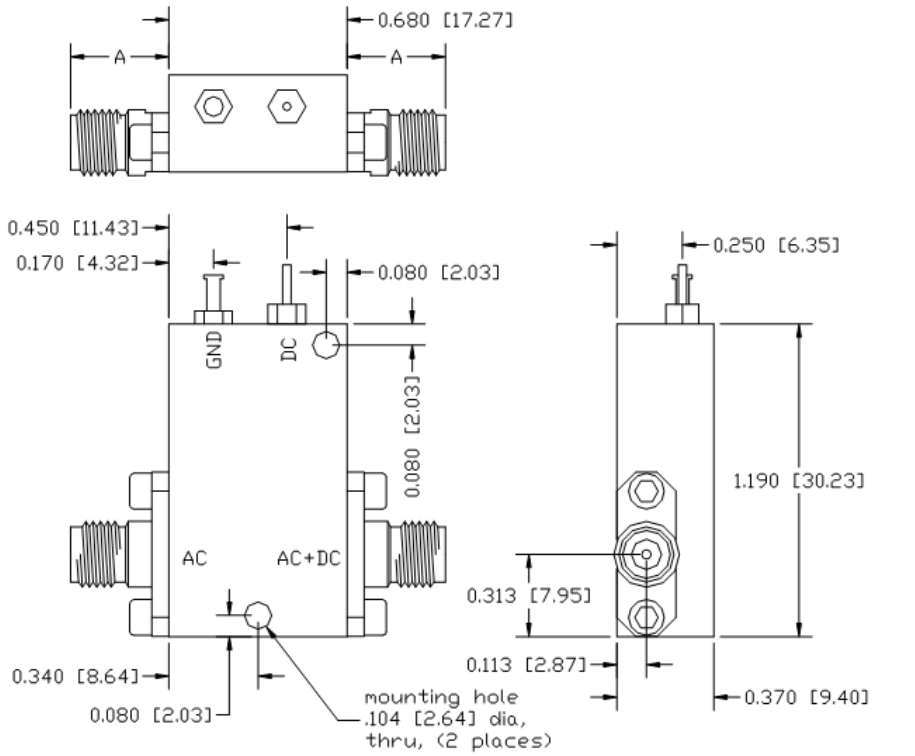


Specifications

Parameter	Symbol	Units	Min	Typical	Max	Comments
Impedance	Z	Ohms		50		
Upper 3 dB frequency	$f_{c,h}$	GHz	40			2.92 mm option
			50			2.4 mm option
Lower 3 dB frequency	$f_{c,l}$	kHz		20		
Rise time	t_r	ps		7		10 – 90%
Insertion loss See S_{21} plot	S_{21}	dB			3	2.92 mm f< 40 GHz
				See plot	3	2.4 mm f< 50 GHz
Input (AC) Return Loss	S_{11}	dB	10			2.92 mm f< 40 GHz
			10	See plot		2.4 mm f< 50 GHz
Output (AC+DC) Return Loss	S_{22}	dB	8			2.92 mm f< 40 GHz
			8	See plot		2.4 mm f< 50 GHz
DC voltage	V	Volts			100	
DC current	I	mA			500	
Capacitance	C	µF		0.2		
Inductance	L	mH		0.5		
Resistance	R	Ohm		1.5		
RF power	P	W			5	Average power
Isolation	S_{13}	dB		> 30		f> 100 MHz
DC path bandwidth	$f_{c,DC}$	kHz		22		
RF Connectors	2.4 mm jacks (f)					
DC Connector	Solder pin					
Warranty	One Year					

*****Maximum and minimum values are based on manufacturing test limits at 25 degrees C.

PSPL5543 Mechanical dimensions



Connector Type	Dimension A female
2.92mm	.375 [9.53]
2.4mm	.430 [10.92]

All dimensions in inches and [millimeters]
Tolerance = ±.005 inches [0.13mm]

Ordering information

Model	Description
PSPL5543	BIAS TEE, 100V, 500mA

Options

- Opt. 240JJ Female 2.4 mm connectors on AC and AC+DC ports, solder pin on DC port
- Opt. 292JJ Female 2.92 mm connectors on AC and AC+DC ports, solder pin on DC port

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